

IN THE CLAIMS:

Listing of the claims -

1. (Withdrawn) An organic waste material processing system for the anaerobic digestion of high-solids waste, the waste material processing system comprising:
 - a closed container for holding high solids waste material, the closed container including
 - a first passage in which the waste material flows in a first direction, the first passage having first and second ends, the first end including an inlet for waste material,
 - a second passage in which the waste material flows in a second direction opposite the first direction, the second passage having first and second ends, the second end including an outlet, the first passage being separated from the second passage by a divider, the second end of the first passage being adjacent the first end of the second passage, and the first end of the first passage being adjacent the second end of the second passage;
 - a heating device containing heating medium and positioned to heat the waste material to form heated waste material; and
 - a partition.
2. (Withdrawn) The organic waste material processing system of claim 1, wherein the heating device is positioned adjacent a wall of the closed container in at least a portion of at least one of the first passage and the second passage to cause thermal mixing of the waste material.
3. (Withdrawn) The organic waste material processing system of claim 1, wherein the closed container further includes a conduit having at least one gas outlet positioned to promote upward movement of the heated waste material utilizing recycled biogas.
4. (Withdrawn) The organic waste material processing system of claim 1, wherein the partition is positioned relative to the divider such that a space is created between the partition and the divider, and wherein the heating device is positioned within the space for heating the waste material and enabling heated waste material to flow upwardly within the space.

5. (Withdrawn) The organic waste material processing system of claim 1, wherein the partition is positioned relative to a wall of the closed container such that a space is created between the partition and the wall, and wherein the heating device is positioned within the space for heating the waste material and enabling heated waste material to flow upwardly within the space.
6. (Withdrawn) The organic waste material processing system of claim 1, wherein the partition has a top edge and a bottom edge, the top edge being spaced a distance from a top of the closed container, and the bottom edge being spaced a distance from a bottom of the closed container.
7. (Withdrawn) The organic waste material processing system of claim 1, wherein the partition is positioned such that a space is created between the partition and a wall of the closed container through which heated waste material moves in an upwardly direction.
8. (Withdrawn) The organic waste material processing system of claim 7, wherein the heating device is positioned within the space.
9. (Withdrawn) The organic waste material processing system of claim 7, wherein the partition has a top edge over which heated waste material moves out of the space.
10. (Withdrawn) The organic waste material processing system of claim 7, wherein the partition has a bottom edge under which waste material moves into the space.
11. (Withdrawn) The organic waste material processing system of claim 1, wherein the heating device comprises a conduit.
12. (Withdrawn) The organic waste material processing system of claim 1, wherein the heating medium comprises water.

13. (Withdrawn) The organic waste material processing system of claim 1, wherein the heating medium comprises a gas.

14. (Withdrawn) The organic waste material processing system of claim 1, wherein the heating device and the partition are positioned to promote a corkscrew-like movement of the waste material such that heated waste material moves generally upward and cooled waste material moves generally downward as the waste material flows in at least one of the first direction and the second direction.

15. (Currently Amended) A method for the anaerobic digestion of high-solids waste, the method comprising:

providing a closed container including

a first passage in which the waste material flows in a first direction, the first passage having first and second ends, the first end including an inlet for waste material, and

a second passage in which the waste material flows in a second direction opposite the first direction, the second passage having first and second ends, the second end including an outlet, the first passage being separated from the second passage by a divider, the second end of the first passage being adjacent the first end of the second passage, and the first end of the first passage being adjacent the second end of the second passage; and

using a heating device positioned in the first or second passage to induce moving the high-solids waste to move in a corkscrew-like fashion through at least one of the first passage and the second passage.

16-29. (Cancelled)

30. (Currently Amended) A method for the anaerobic digestion of high-solids waste, the method comprising:

positioning a liquid diffuser or gas diffuser in an anaerobic digestion container; and
using the diffuser to move ~~moving~~ the high-solids waste in a corkscrew-like flow path through at least a portion of the container.

31-35. (Cancelled)

36. (Previously Presented) The method of claim 15, further comprising using liquid to facilitate the corkscrew-like flow path.

37. (Previously Presented) The method of claim 15, further comprising using gas to facilitate the corkscrew-like flow path.

38. (Currently Amended) The method of claim 15, wherein the heating device comprises ~~further comprising using~~ heating pipes to enhance convection and facilitate the corkscrew-like flow path.

39. (New) The method of claim 15, wherein the first passage and the second passage are separated by a center wall, the container has outside walls, and the center wall and outside walls are substantially planar and vertical.

40. (New) The method of claim 39, wherein the heating device is positioned adjacent the center wall, and the heating device provides convective forces that cause heated sludge to rise near the center wall, while sludge near the relatively cooler outer wall falls under convective forces.

41. (New) The method of claim 39, wherein the heating device is positioned adjacent one of the outside wall, and the heating device provides convective forces that cause heated sludge to rise over the outside wall, while sludge near the relatively cooler center wall falls under convective forces.

42. (New) The method of claim 40, wherein the heating device includes a conduit having at least one gas outlet positioned to promote upward movement of the heated waste material utilizing recycled biogas.

43. (New) The method of claim 15, wherein the heating device includes a conduit having at least one gas outlet positioned to promote upward movement of the heated waste material utilizing recycled biogas.

44. (New) The method of claim 15, wherein the heating device contains a heating medium.

45. (New) The method of claim 44, wherein the heating medium comprises water.

46. (New) The method of claim 44, wherein the heating medium comprises a gas.

47. (New) The method of claim 15, wherein the corkscrew-like fashion movement is established without an auger.

48. (New) The method of claim 15, further comprising positioning a liquid diffuser in the container to induce the corkscrew-like movement.

49. (New) The method of claim 15, further comprising positioning a gas diffuser in the container to induce the corkscrew-like movement.

50. (New) The method of claim 30, further comprising using a heating device positioned in the first or second passage to induce the corkscrew-like flow path.

51. (New) The method of claim 30, wherein the first passage and the second passage are separated by a center wall, the container has outside walls, and the center wall and outside walls are substantially planar and vertical.

52. (New) The method of claim 51, wherein the diffuser is positioned adjacent the center wall, and the diffuser provides forces that cause sludge to rise near the center wall, while sludge near the outer wall falls.

53. (New) The method of claim 51, wherein the diffuser is positioned adjacent one of the outside walls and the diffuser provides forces that cause sludge to rise near the outer wall, while sludge near the center wall falls.